

REMARKS

This is a full and timely response to the non-final Office Action (Paper No. 5) mailed by the U.S. Patent and Trademark Office on March 25, 2003. Claims 1, 6 and 11 have been amended. Applicant requests entry of the amendments. The subject matter recited in amended independent claims 1, 6 and 11 can be found in the Applicant's specification at least with respect to FIGS. 4A and 4B and at least on page 7, lines 3-21; page 8, lines 11-15; page 10, lines 8-14; page 10, lines 15-18; and page 15, line 9 to page 7, line 2. Consequently, Applicant respectfully submits that no new matter has been added to the present application.

Reconsideration of the pending claims is respectfully requested, in view of the preceding amendments and the following remarks. Each rejection presented in the Office Action is discussed in the remarks that follow.

I. Response to 35 U.S.C. §102 Rejections – Claims 1-15

A. Statement of the Rejection

Claims 1-15 presently stand rejected under 35 U.S.C. §102(e) as allegedly being unpatentable over Carter *et al.* (U.S. Patent Number 5,987,506, hereafter *Carter*).

B. Discussion of the Rejection

Applicant respectfully traverses the rejection of claims 1-15 under 35 U.S.C. §102(e) over *Carter* for at least the reason that the cited reference fails to disclose, teach, or suggest each element in the claims.

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of *each element* of the claim under consideration.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983) (*emphasis added*). Therefore, every claimed feature of the claimed invention must be represented in the applied reference (*i.e.*, *Carter*) to constitute a proper rejection under 35 U.S.C. § 102(e).

Claim 1

For convenience of analysis, independent claim 1 as amended is repeated below in its entirety.

1. A method for transparent file proxying, the method comprising the steps of:
coupling a plurality of computing devices to a local area network, at least one of said plurality of computing devices including the ability to route

communication packets to said remaining plurality of computing devices, each of said plurality of computing devices including a memory element containing a plurality of files;

coupling said at least one of said plurality of computing devices to a communication network;

coupling a remote memory element to said communication network, said remote memory element configured to maintain a file selected from said plurality of files contained in the memory elements of each of said plurality of computing devices;

coupling a remote computing device to said remote memory element;

intercepting, in said remote memory element, ***an Internet Protocol (IP)*** communication message from said remote computing device; and

providing said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device if said IP communication message requests said selected file from one of said plurality of computing devices connected to said local area network, ***thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.***

(Applicant's independent claim 1 - *emphasis added.*)

Applicant respectfully asserts that the cited art of record fails to disclose, teach, or suggest at least the emphasized element of pending claim 1 as shown above. Consequently, claim 1 is allowable.

Specifically, the system disclosed in *Carter* fails to disclose, teach, or suggest Applicant's method for transparent file proxying comprising at least "intercepting, in said remote memory element, ***an Internet Protocol (IP)*** communication message from said remote computing device," and "providing said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device if said IP communication message requests said selected file from one of said plurality of computing devices connected to said local area network, ***thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.***"

Carter appears to disclose a globally addressable storage system. See *Carter*, col. 3, lines 1-5. According to *Carter* "[t]he environment in which the invention operates includes systems that create and manage a virtual storage space shared by each computer on a network. The virtual storage space spans each storage device (e.g., RAM and hard disk) connected to the network. Accordingly, all data stored on the network can be stored within the virtual space and the actual physical location of the data can be in any of the storage devices connected to the network." See *Carter*, col. 3, lines 9-16.

Furthermore, according to *Carter*, “the virtual memory space spans 2^{128} bytes, which is much larger than the 2^{32} address space supported by any one of the underlying computer hardware.” See *Carter*, col. 3, lines 28-30. Apparently, the system disclosed in *Carter* makes all networked memory available to each node on the network. “By allowing each computer to monitor and track which portions of the virtual space are in use, each computer can share the space. This allows the networked computers to appear to have a single memory, and therefore can allow application programs running on different computers to communicate using techniques currently employed to communicate between applications running on the same machine.” See *Carter*, col. 3, lines 42-48.

However, the system disclosed in *Carter* apparently requires all information and data requests to traverse the network over which the computers in *Carter* are connected. Specifically, according to *Carter*, in col. 3, lines 59-62, “the computer can include remote computers that access the network(s) via a communications adapter (e.g., a modem) and the telephone lines. The globally addressable storage environment allows data to be accessed and shared by such remote computers and among the computers on the plurality of networks.”

Carter, in col. 6, lines 37-51, further appears to disclose a network system 10 that: includes a plurality of network nodes 12a-12d and an addressable shared memory space 20 that has a portion 22 for storing a structured store of data 28. Each of the nodes 12a-12d can include several sub-elements. For example, node 12a includes a processor 30a, a data control program 32a, and a shared memory subsystem 34a. In the disclosed embodiment, two of the nodes, 12a and 12c, include monitors that provide displays 40 and 42 graphically depicting the structured store of data 28 within the addressable shared memory space 20. The addressable shared memory space 20 interconnects each of the network nodes 12a-12d and provides each node 12a-12d with access to the structure store of data 28 contained within the addressable shared memory space 20.

Accordingly, it appears that *Carter* discloses a system in which a plurality of network computers share a virtual memory space, where file requests traverse the network over which the computing devices are connected.

Indeed, FIG. 2 of *Carter* shows a structured file system 60 that “employs the properties of the addressable shared memory space 20 to implement what looks to all network nodes like a coherent, single file system when in fact it spans all network nodes coupled to the addressable shared memory space 20.” See *Carter*, col. 8, lines 25-29.

Significantly, *Carter* fails to disclose, teach or suggest at least “intercepting, in said remote memory element, *an Internet Protocol (IP)* communication message from said

remote computing device,” and “providing said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device if said IP communication message requests said selected file from one of said plurality of computing devices connected to said local area network, *thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.*”

Thus, the system apparently disclosed in *Carter* fails to disclose, teach, or suggest each element of the Applicant’s independent claim 1. Consequently, Applicant respectfully submits that claim 1 is allowable over *Carter* and request that the rejection of claim 1 be withdrawn.

Because independent claim 1 is allowable dependent claims 2-5, which depend either directly or indirectly from allowable independent claim 1 are also allowable. *See In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, Applicant respectfully requests that the rejection of claims 1-5 be withdrawn.

Claim 6

For convenience of analysis, independent claim 6 as amended is repeated below in its entirety.

6. A system for transparent file proxying, comprising:
 - a local network to which is coupled a plurality of computing devices, at least one of said plurality of computing devices including the ability to route communication packets to said remaining plurality of computing devices, each of said plurality of computing devices including a memory element containing a plurality of files;
 - a communication network coupled to said at least one of said plurality of computing devices;
 - a remote memory element coupled to said communication network and configured to maintain a selected file selected from said plurality of files contained in the memory elements of each of said plurality of computing devices;
 - a remote computing device connected to said remote memory element, said remote memory element configured to intercept an *Internet Protocol (IP)* communication message from said remote computing device; and
 - wherein said remote memory element is configured to provide said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device, said IP communication message requesting said selected file from one of said plurality of computing devices connected to said local network, *thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.*

(Applicant's independent claim 6 - *emphasis added*.)

Applicant respectfully asserts that the cited art of record fails to disclose, teach, or suggest at least the emphasized step of pending claim 6 as shown above. Consequently, claim 6 is allowable.

Significantly, *Carter* fails to disclose, teach or suggest at least "a remote computing device connected to said remote memory element, said remote memory element configured to intercept an **Internet Protocol (IP)** communication message from said remote computing device," and "wherein said remote memory element is configured to provide said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device, said IP communication message requesting said selected file from one of said plurality of computing devices connected to said local network, **thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.**" Thus, the system apparently disclosed in *Carter* fails to disclose, teach, or suggest each element of the Applicant's independent claim 6. Consequently, Applicant respectfully submits claim 6 is allowable over *Carter* and request that the rejection of claim 6 be withdrawn.

Because independent claim 6 is allowable dependent claims 7-10, which depend either directly or indirectly from allowable independent claim 6 are also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claims 6-10 be withdrawn.

Claim 11

For convenience of analysis, independent claim 11 as amended is repeated below in its entirety.

11. A computer readable medium having a program for transparent file proxying, the program comprising logic configured to perform the steps of:
 - coupling a plurality of computing devices to a local area network, at least one of said plurality of computing devices including the ability to route communication packets to said remaining plurality of computing devices, each of said plurality of computing devices including a memory element containing a plurality of files;
 - coupling said at least one of said plurality of computing devices to a communication network;
 - coupling a remote memory element to said communication networksaid remote memory element configured to maintain a file selected from said plurality of files contained in the memory elements of each of said plurality of

computing devices;
coupling a remote computing device to said remote memory element;
intercepting, in said remote memory element, an **Internet Protocol (IP)** communication message from said remote computing device; and
providing said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device, said IP communication message requesting said selected file from one of said plurality of computing devices connected to said local area network, **thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.**

(Applicant's independent claim 11 - *emphasis added*.)

Applicant respectfully asserts that the cited art of record fails to disclose, teach, or suggest at least the emphasized step of pending claim 11 as shown above. Consequently, claim 11 is allowable.

Significantly, *Carter* fails to disclose, teach or suggest at least "intercepting, in said remote memory element, an **Internet Protocol (IP)** communication message from said remote computing device," and "providing said selected file to said remote computing device when said remote memory element intercepts said IP communication message from said remote computing device, said IP communication message requesting said selected file from one of said plurality of computing devices connected to said local area network, **thus providing said selected file to said remote computing device without said IP communication message traversing said communication network and said local area network.**" Thus, the system apparently disclosed in *Carter* fails to disclose, teach, or suggest each element of the Applicant's independent claim 11. Consequently, Applicant respectfully submits claim 11 is allowable over *Carter* and request that the rejection of claim 11 be withdrawn.

Because independent claim 11 is allowable dependent claims 12-15, which depend either directly or indirectly from allowable independent claim 11 are also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claims 11-15 be withdrawn.


CONCLUSION

In summary, Applicant respectfully requests that all outstanding claim rejections be withdrawn. Applicant respectfully submits that presently pending claims 1-15 are allowable over the cited art of reference and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comment regarding the Applicant's response or believe that a teleconference would expedite prosecution of the pending claims, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

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